

Oil Spill Response: Health Surveillance Update
Tulane University of Public Health and Tropical Medicine

May 18, 2010.

4-6pm CDT

Meeting facilitators: Chip Hughes and Maureen Lichtveld

Meeting Purpose: Advance the dialogue on human health exposure, monitoring, and surveillance issues related to oil spill response.

Welcome by Dean Buekens

Dean Pierre Buekens welcomed the participants and expressed Tulane's support and commitment to the coordinating activities to address the human health –related activities associated with the oil spill response

1. Roll Call:

In Person:

Chip Hughes (NIEHS)
Maureen Lichtveld (Coordinator, Tulane U oil spill -related human health research)
Faye Grimsley (Tulane U.)
Brian Liddell (OSHA Region 6)
Ed Trapido (Coordinator for LSU Campuses Oil Spill activities)
Jim Diaz (LSU)
David Lirette (LSU)
Dan Harrington (LSU)
Xie Yanzhou (LSU)
Roy Rando (Tulane)
Stephanie Cormier (LSU)
Heather Henry (NIEHS/SRP)
Steve Kleeberger (Deputy NIEHS)
Ed Laws (LSU)
Jeff Johnson (Tulane)
Beverly Wright (Dillard University)

On Phone:

Glen Collman (NIEHS)
Allen Dearth (NIEHS)
Paul Jung (NIEHS)
Margaret Kitt (NIOSH)
Alyson Morton (BP)
Fred Tremmel (BP)
Scott Phillips (BP)
Paul Garvey (CDC)

Mark Catchman (OSHA)
Tina Jones (OSHA)
Rosie Sokas (OSHA)
Chris Peterson (EPA)
Tina (FL responders)
Robert Miller, NIEHS
Glen Milner (Center for Toxicology Environmental Health)
Don Elisburg, NIEHS Clearinghouse
Angie Franklin, New Orleans City Health Dept.
Mark Ryan (Louisiana Poison Control Center)
Chris Peterson (EPA)
Steven Murphy (New Orleans Dept. of Homeland Security Office)
Abraham (ASTHO)
Tom Chester (MS Dept of Health)
Michelle Lackovic (LA Dept of Health)
Barry Dellinger (LSU)
Bert Hakkinen (NLM)
Sandra Robinson: Acting Director, City Health Department (New Orleans)
Deborah Weinstock, NIEHS Clearinghouse
Joy Lee, NIEHS Clearinghouse

Meeting Minutes:

2. Partnership goals:

- Develop a human health research science advisory process to assure the credibility of the science.
- Develop a framework that would lead to collaborative human health research agenda.
- Conduct research to inform response, surveillance, targeted studies, and the process for long term human health assessments and follow-up.
- Continue the dialogue, initiated during the first partner meeting on May 6, 2010.

3. Updates:

NIEHS:

- Chip Hughes: Working on responder/worker safety and health training. We have engaged BP, OSHA and other agencies in worker training efforts in terms of safety and health. We want to figure out how to bring out the resources that NIEHS can bear in regards to the oil spill training, surveillance, and research activities.
- Gwen Collman: NIEHS is exploring mechanisms in place to encourage research. For example, NIEHS supports a network of over 20 Centers of Excellence across the country that includes an expert research community and outreach—we see that group of centers

as a network of experts that local community and unified command can draw upon.. Superfund Research Program also has its own network of experts.

- Steven Kleeberger, Acting Deputy Director NIEHS: affirmed what Chip and Gwen has said and indicated that the Director's office is committed to help in any way possible

NIOSH:

- Margaret Kitt: Several weeks ago when we met, we were developing a survey to roster the workers. We were working initially with BP, but they came up with the agreement that NIOSH would develop the form, administer the form, collect data, and maintain database. The survey instrument identifies the worker demographics (name and contact), normal occupation, training to date, and expectation on work for oil spill. We initially wanted to tie form into the training with PEC, but we couldn't get the process going fast enough for those already trained. We need a better process to capture those already trained, but they have people out in the staging areas to catch those who already went through training.
 - So far we have 900 surveys completed. We are not capturing everyone, but we are getting a pretty good response rate and a lot of cooperation. Forms are dispersed in person and in three languages. Most sites also have access to translators to help out. Good response from Hispanic community workers, and a few Vietnamese workers (but have not seen the Vietnamese translators in action). Each form includes a disclosure as to the purpose of the roster.
 - Target population: all workers hired by BP or volunteers in the area, and contractors. We are not capturing the Coast Guard (they have their own tracking system). We are also working to capture some workers from Department of the Interior. Are capturing mostly people who are doing cleanup work on site, anyone in staging areas. We are able administer the forms when they have safety meetings every morning.
 - Steph Cormier asked a question on whether is this going to link to the registry? NIOSH is working to link to the number of hours worked, tasked employed and whatever exposure monitoring information is available.

BP:

- Fred Tremmel: BP has collected worker data for sign-in, sign-out job tickets: logs # hours on job, tasks completed, and exposure monitoring. Impressed on how roster form was rapidly approved. Collecting a lot of data and trying to upload as fast as they can to EPA website. We are trying to share everything we are collecting.
- Alyson Martin: Helped to gather materials for the Coast Guard on dispersants and chemicals.
- Glenn: We have been collecting 18 consecutive days, 24/7, of public air monitoring between New Iberia, LA and Gulf Breeze, FL. Looking for VOCs and ruling out

benzene, sulfur dioxide, and hydrogen sulfide as chemicals of interest. Have around 12 fixed monitoring locations, where they are measuring TICs, propylene glycol, etc. We are doing near shore and boat sampling, personnel off shore sampling, and vessels of opportunity. We are also conducting spot monitoring and individual exposure monitoring of beach workers. These are the data that are being uploaded to EPA site.

CDC:

- Paul Garbe: The five Gulf States Health Departments are working together to determine how they will go about addressing adverse effects in community residents. We are trying to agree on what respiratory endpoints they have the capacity for measuring (baseline and over time). We expect to rely on the infrastructure of the syndrome surveillance system and poison control centers to develop a community surveillance system in the affected Gulf Coast States.

EPA:

- Chris Peterson: EPA is conducting a lot of sampling-- air, water and sediment . For air, we are using stationary and mobile units. Some weathered oil background sampling of water from LA to west end of Marsh Island is being conducted. Measured compounds are: VOCs, (PAHs), metals, oil and grease. EPA is also measuring the subsurface dispersant to determine particle size, toxicity. We are trying to set up an early alert in case oil starts coming on shore. Data are published on EPA's website, and data collection is ongoing. Chris Petersen was not aware of any human exposure data, EPA is currently collecting.

OSHA:

- Brian Lidell: Providing technical assistance and advice addressing worker safety and health . OSHA is evaluating sampling needs and how to supplement current efforts.
- Rosie Sokas: data on exposure for oil spill respondents is largely not measured or included in previously published research (see PubMed search on NLM website); Heat stress is going to be an issue and related health effects may be important to focus on in addition to any chemical exposure. Hence, this group needs to be sure it has a way to assess heat stress; logging in temperature highs will help us understand drivers of acute sickness.

Louisiana Department of Health:

- Michelle Lackovic: we have established a surveillance system and are capturing reports from hospitals, clinics and poison control centers in the Gulf Coast. We do not have a lot reports to date, but are working with other Gulf States. We are also working with OSHA on worker complaints. An additional exposed group we wanted to bring to attention are the oil rig workers on other platforms. There have been complaints about exposure to dispersants and, in a few cases, platforms have closed (evacuated) because the concentration of dispersants in the air was so high. She also reports that there has been

coordination between area hospitals and guidance given to hospitals for referrals related to the oil spill.

LuAnn White:

- Works with the LA Department of Health and Hospitals on seafood monitoring. We have gotten baseline measures, so will be monitoring that. We have also received EPA air data. We are doing research on dispersants and looking at how dispersants may affect seafood or coastal areas.

City of New Orleans:

- Stephen Murphy: will support in way needed. Sandra Robinson represented the City Health Department.

Louisiana Poison Control Center:

- Mark Ryan: We assist in medical management of any poison or overdose patients. We get the call, assess the scenario, obtain patient information, and provide recommendations. PCC contacts the hospital and ER prior to arrival of patients. We also follow the patients until the symptoms are resolved. In response to the oil spill, we are collecting additional information: exact location of caller, detailed scenarios of exposure, time working on the job, and what the job was. We have coordinated this activity with other state poison control call centers (AL, MS, almost have FL on board). We have had 8 callers to date, all workers - symptoms have been mild and once workers are removed from the exposure, the symptoms stop. We have also received general inquiry calls about seafood safety. We are working with community groups to increase the awareness of the PCC resources.

NLM:

- Bert Hakkinen: [Link](http://disaster.nlm.nih.gov/dimrc/oilspills.html) to Disaster Response on Crude Oil Spills (<http://disaster.nlm.nih.gov/dimrc/oilspills.html>).
 - The website has featured sites, links to other resources, CDC, NOAA, EPA. There is a section on occupational exposure, dispersants; link to seafood; recovery links, gulf state, other section on wildlife; social media site related to response; sections on PubMed (free access to selected journals); links to TOXLINE; government agency reports. We recently added multi-language resources. We are open to suggestions. We also have a listserv—so if people want to push out info to first responders, this may be useful. The emergency access initiative does not apply to this situation—so best way is to interact directly with the publisher.

Questions?

Steve Kleeberger: Are we capturing emergency department visits? What efforts are being done to coordinate references in hospitals? Michelle Lackovic: We have contacted all hospitals in

southern part of LA and let them know how to refer cases to them. Florida: Similar efforts are done in other Gulf Coast states

Aubrey Miller: Is there any opportunity to standardize the collection of reports? Paul Garbe: we are trying to standardize what we are compiling. Each state will have its own, but we will be asking states to share the information and we will compile the data.

For people who joined the call and would like to receive updates, please email Maureen. Maureen's email is mlichtve@tulane.edu

Barry Dellinger: Regarding air sampling, are PM 2.5 samples being chemically analyzed or is it just for mass concentration? Glenn: We are collecting PM2.5 and PM10 samples but we are not assessing the composition of the particles. EPA: it was not clear whether any additional contaminants were being measured apart from EPA criteria pollutants.

Bert Hakkinen: Any effort to connect European Commission or other non-US organization who have been doing research in the past? Chip agreed their perspective would be helpful, but to date, they are not aware of groups in EC or contacts there.

Beverly Wright: For BP, are you still doing train-the-trainer workshops? Fred Tremmel: do not have answer. Margaret Kitt: we were told a few days ago that they were going to slow down the training.

Sandra Robinson: Since we are in area that is going into hurricane season, are there any considerations in terms of changes in contaminant concentration due to change of weather and water temperature? No answer

4. Research Topics:

The six research topics identified from previous call(s) were discussed. These themes represent a broad public health response, each with its own domain of activities.

(1) Acute Worker Medical Surveillance

- Margaret Kitt: A couple of aspects: We are capturing initial information so that we can contact participants if necessary. We want to give exit surveys, (still awaiting approval from OMB) which would be done in the demobilization staging areas. The survey asks about acute symptoms and recall of symptoms on the job. We are pursuing this aspect although it may be hard to do. Fred Tremmel (BP) mentioned BP has a system in place to track illness/injury at sites. This information is filtered to Houma, LA (for Louisiana work) and Mobile, AL (for AL, MS, FL workers). All of this information is sent to Roberts, Louisiana. BP is working on uploading this into a database – catching all reportable injuries for near-term. They are trying to link these data to have real-time information. The idea is that if we see trends, we can intervene in real time.
- Chip reinforced importance of capturing, archiving, and transferring acute surveillance information in order to provide real-time information to inform response efforts.

- Aubrey Miller: Can we get some baseline? Margaret Kitt: Have talked but have not moved along
- Rosie Sokas: If there is a good data collection mechanism, it would be nice to hook it up to PSP and incorporate into exposure assessment generated. This is just to harvest the data on previous oil spill research. Collect information and have subset of more precise data collected to do follow up.
- Alison Martin (BP): We will talk about it and get back to you.
- Fred Tremmel(BP): although it was agreed upon, we wanted NIOSH to collect, because our lawyers did not want to deal with HIPAA ; this also it may dissuade workers
- LuAnne White: Idea to fund independent organizations to do surveillance. Maureen Lichtveld: This is correct
- Are the data NIOSH is collecting shared? Margaret Kitt: Findings will be shared, but quite a ways off. Raw data is confidential.
- Is NIOSH committed to longer follow-up? Margaret Kitt: Either by ourselves or in partnership .

(2) Long Term Worker Registry

- Acute and long term monitoring are connected human health activities
- Maureen Lichtveld: Learning from WTC response, it is important that long-term registry activities are adaptable or can be informed by information as it comes in (e.g. acute studies, based on what emerges). WTC long-term studies were locked into specific outcomes.
- Ed Trapido: suggested that for cancer endpoints, we should be able to compare state average incidence with that of the workers, see if there are elevated levels. Each of the Gulf States has cancer registries.
- Rosie Sokas: We need to identify what stratification, if any, is needed as this information needs to be collected up front. The plan is to observe trends to inform what long-term effects need to be measured or what kind of stratification is appropriate. For example, the Prestige Oil Spill (off coast of Spain) stratified by job, whether the worker was did wildlife clean-up, beach clean-up, boat workers, or community at large. Results indicated there was a relationship between job and long-term effects. Therefore, it is very important to accurately record this information during acute phase (above) to inform the long-term effects.

- Chip Hughes: One of the unique things about WTC's capability to do retrospective study is that FDNY has a great surveillance system that has a baseline. Don't know if any contractor has a baseline on workers. We have to figure out the baseline data to compare.
- Glenn Milner: we have baseline.
- Jim Diaz: BP had excellent data in Belle Chasse on BP workers and contractors. Another federal agency (DOE) is conducting study on heat stress and power line workers, so may be able to piggy back on this.
- Fred Tremmel: Can't comment on health records. The majority of workers are contractors, and in case of vessels of opportunity are people off the street.

(3) Community Assessment and Resiliency

- Maureen Lichtveld: Note made that given experience with Katrina "resilience" is more appropriate term than "mental health", Very important to gauge and address community concerns and psychosocial stress.. There are two audiences: responders, including cleanup workers; and communities.
- Chip Hughes: Our own responders are having a hard time with the disaster as they have an incredible level of daily stress. We are at the point of needing to remove ourselves and refresh. We wanted it to be on the agenda; we don't know what the solution is, but it needs to be addressed.
- Kevin. Stephens: Agree. There may be underlying depression that is masked. The need to look at the mental health issues is instrumental.
- Beverly Wright: Wondering if we are doing something more than just assess, such as making available counselors to workers. Trauma can create worse stress on community. What is BP doing to address the psychosocial aspect? How to intervene and prevent?
- Sandra Robinson: We are dealing with a population who has been tremendously affected by Gulf Coast hurricanes. The multiplication of the disasters has a great effect on the community. What is the research on resilience of back to back disasters? We don't have an experimental situation like this.
- Maureen Lichtveld: we have a research team at Tulane who has conducted research that resulted in unique community pre- and post Katrina data on resilience and psycho social health..
- Chip Hughes: In terms of firefighters response in WTC—we have a peer process to do this. Has not seen BP do this.
- Ed Trapido: Would expect to see increases in smoking, alcohol use and suicide
- Aubrey Miller: This is a slow evolving technical disaster situation, so we can expect a number of ramifications over time.

- Allen Dearry: Agree with basic premise to address thi issue; not a lolt has been done in research dealing with resiliency and prevention of psychosocial stress.
- Fred Tremmel: At the Robert Command Center, we have EAP counselors walking around and talking to people. We have some stress communication activities going on, and assume that other centers have similar activities ongoing.

(4) Public Health implications for humans of impact on seafood

- LuAnne White: seafood safety measuring/monitoring plan process is robust (measuring established oyster beds, fish caught at docks) – but the plan to communicate this information to the Louisiana Coastal residents is not well established. Exposure prevention plan involves closing some of the shrimping areas along the LA coastline. Agencies involved include NOAA, FDA, and State Departments of Health and Environmental Quality. There is no plan to specifically deal with subsistence fishermen or ensure that they are not accessing areas that should not be fished. It is assumed that the coast guard patrolling (preventing fishing in restricted areas) can prevent this from happening, but it is not clear.
- Beverly Wright: Is there a plan to deal with subsistence fishing, people who fish to live?
Luanne: There are areas that are open and closed and monitoring is continuous.
- Glenn Milner: Coast Guard is monitoring and policing in areas that are closed.

(5) Health Professions Education

(6) Community Health Education

- Maureen Lichtveld: These two activities are critical and related. Both will facilitate efectivehealth risk communication. This will entail educating local providers along the coast and beginning efforts of community health education in addition to information dissemination.
- ChipHughes: We are trying to figure out the message of caution and message of resilience. This is an important issue that we need to think about more, in terms of responders and workers and also communities. These populations needs to be reassured that we? they are protecting them.
- Maureen Lichtveld: communication should focus on two major areas: sharing what is happening and what it means ; and community engagement .

5. Next Steps

Oil-spill related human health research- potential areas of research inquiry:

- Target pop: off shore workers/early responders

- Focus on health effects of target populations with all potential exposures to Gulf Oil related contaminants, including clean-up efforts or other unique exposure scenarios due to early response
- Biospecimen collection and monitoring from key populations of ‘first’ responders (i.e. workers, fishermen, volunteers)
- Collect or use environmental monitoring made available by Federal agencies of key environmental media: air, water, sediment, shellfish
- Evaluate the associations between emerging health effects in key populations along the coast who are involved in emergency response to this accident
- Develop risk communication campaign to relate key messages about health and safety issues that are related to environmental contamination and health effects evolving from oil spill
 - Incorporate geocoding, spatially-based monitoring systems into research:
 - Tracking onshore/off-shore monitoring activities
 - Proximity of worker to known monitoring source
 - Dispersant use zones (information BP has, spatially coded, samples collected)
 - Need a common grid for Federal, BP, and Community (e.g. volunteer “dead bird” logging activities) monitoring/tracking.
 - Establish Models to evaluate the human health effects over time in workers and other key target populations with unique exposure potential.
 - Develop a predictive monitoring to look at health overtime.

Additional discussion and questions

- Ed Trapido: question on whether or not there is information on chemicals on the different phases of the oil?
 - Barry Dellinger has not been successful in getting the information.
 - Glenn Milner: there is a crew of collecting samples is a controversy at the moment.
 - Beverly Wright: one of the most important questions being asked, no idea what the effects are, communities want to know what the effects of these chemicals and the impact these will have on the fish. What are the long-term health effects? EPA is monitoring what they regulate.
 - Fred Tremmel: Analytical data: a lot of analytical work is being done, there are no samples available on weathered crude; it is extremely difficult to get information out,

because everything shared with the public needs to be vetted by an enormous number of agencies.

- Aubrey Miller: A lot of research has been done previously that can help with setting a baseline.
- Sandra Robinson: Tourism is greatly affected. We went through this during Katrina. At the health department, we just needed to know the bottom line at all times. The health departments can set up a direct line, for tourists to call in to ask health questions. We needed to say truthfully to the tourists what the situation is. During Katrina, the health department has been referencing CDC. We need the basic information that pertains to specific parishes. They do not want to tell people we don't know what is happening ; we need to contact from people early and be available 24/7 with information.
- Maureen Lichtveld: this is an example of lack of communication; also reflects on the need for this.
- Barry Dellinger requested samples for analysis, but was given the wrong person to contact. The research community needs to be put in contact with people who can provide samples of these materials otherwise difficult to know what health effects (acute/long-term) may appear. BTEX data not sufficient for some exposure scenarios (burning).
- Fred Tremmel said BP's analytical data indicate no compounds lighter than C14 in the weathered crude. BP is having difficulty releasing their data because of a need for approvals from multiple federal agencies.

Maureen Lichtveld: Last area: what goes into a research framework? How do we put a structure in place to promote data sharing?

- Maureen Lichtveld: We need a National human health science advisory board. We won't make progress if we also don't have a Scientific Steering Committee that can drive the research. In addition, worker advisory boards and community advisory boards should be put in place to engage and assure worker issues as well as community interests are addressed.
- Chip Hughes: Our organization has had very serious communication about this. Where we wanted to end is that we wanted to create a forum where discussion takes place. This is something that needs to happen soon. I don't know if we have a model of how it should go, but it needs to involve community, BP, academia, scientific communities, and other stakeholders.
- Fred Tremmel: BP supports having a science advisory board. We have some names in mind--scientists independent of BP but representing BP.

- Steve Kleeberger: We'll discuss in a week how funds can be made available – but NIEHS is looking into possible mechanisms (eg ARRA money) and a rapid review process. Typically, 90 days constitutes rapid turnaround for research funding, but NIEHS is looking into ways to expedite the process, as was done for ARRA. The nature of review (whether internal/external) is not known.
- Bert Hakkinen: do you have plans to have website to share information?
 - Chip Hughes : we do not have idea yet regarding the best way to disseminate information, such as notes from these meetings.
 - Maureen Lichtveld: Information dissemination is important;
 - Aubrey Miller: opportunity to share terms of data information; some way of sharing this would great.

The meeting was adjourned at 6pm.